[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0010; Directorate Identifier 2012-NE-03-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. This proposed AD was prompted by the discovery of non-conformities of certain power turbine (PT) blade fir-tree roots. This proposed AD would require removing the affected PT blades from service on or before reaching a new reduced life limit for those certain PT blades. We are proposing this AD to prevent PT blade rupture, which could result in an uncommanded in-flight engine shutdown, forced autorotation landing, or accident.

DATES: We must receive comments on this proposed AD by [insert date 60 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

Federal eRulemaking Portal: Go to http://www.regulations.gov and follow the instructions for sending your comments electronically.

Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 05 59 74 40 00; fax: 33 05 59 74 45 15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-0010; Directorate Identifier 2012-NE-03-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2011-0218, dated November 10, 2011 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

> During production of Arriel 2 Power Turbine (PT) wheels, Turbomeca has detected geometric non-conformities on blade fir-tree roots. The technical investigations carried out by Turbomeca have shown that this non-conformity is due to PT blade manufacturing and that only a limited number of PT blades are potentially affected.
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> This situation, if not detected and corrected, may potentially lead to a reduction in the fatigue resistance of the PT blades, which can reduce their in service use limit. This reduction of fatigue resistance can potentially result in blade rupture, which could cause an uncommanded in-flight shutdown, ultimately leading to an emergency autorotation landing for a single-engine helicopter.
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> To address this unsafe condition, Turbomeca has issued Turbomeca Mandatory Service Bulletin (MSB) A292 72 2842, Version A, in which the life limit of those PT blades is reduced to 5,000 Flight Cycles (FC).

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Turbomeca S.A. has issued Mandatory Service Bulletin No. A292 72 2842, Version A, dated September 23, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination of This Proposed AD

This product has been approved by the aviation authority of France, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 150 engines installed on helicopters of U.S. registry. We also estimate that it would take about 4 work-hours per product to comply with this proposed AD. The average labor rate is $85 per work-hour. A prorated replacement M04 module would cost about $20,000 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be $3,051,000.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Turbomeca S.A.: Docket No. FAA-2012-0010; Directorate Identifier 2012-NE-03-AD.

(a) Comments Due Date

We must receive comments by [insert date 60 days after date of publication in the FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines with at least one installed power turbine (PT) blade part number (P/N) 2 292 81 A01 0, serial numbers (S/Ns) 102782 through 120230 inclusive, or, S/Ns 120293 through 120390 inclusive.

(d) Reason

This AD was prompted by the detection of geometric non-conformities on PT blade fir-tree roots. We are issuing this AD to prevent PT blade rupture, which could result in an uncommanded in-flight engine shutdown, forced autorotation landing, or accident.

(e) Actions and Compliance

Unless already done, do the following actions within 5,000 flight cycles on the PT blades, or within one month after the effective date of this AD, whichever occurs later.

(1) Replace the PT blades with PT blades eligible for installation; or

(2) Replace the M04 module with an M04 module having PT blades eligible for installation; or

(3) Replace the PT wheel assembly with a PT wheel assembly having PT blades eligible for installation.

(4) Guidance on the replacements specified in paragraphs (e)(1) through (e)(3) can be found in Turbomeca S.A. Mandatory Service Bulletin No. A292 72 2842, Version A, dated September 23, 2011.

(f) Definition

For the purposes of this AD, a PT blade eligible for installation is one not listed in paragraph (c) of this AD or, one listed in paragraph (c) of this AD with fewer than 5,000 flight cycles.

(g) Installation Prohibition

From the effective date of this AD:

(1) Do not install a PT blade as listed in paragraph (c) of this AD, that has 5,000 or more flight cycles, into any engine.

(2) Do not install any engine with a PT blade as listed in paragraph (c) of this AD, that has 5,000 or more flight cycles, onto a helicopter.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

(2) Refer to MCAI EASA Airworthiness Directive 2011-0218, dated November 10, 2011, and Turbomeca S.A. Alert Service Bulletin No. A292 72 2842, Version A, dated September 23, 2011, for related information.

(3) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 05 59 74 40 00; fax: 33 05 59 74 45 15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on January 13, 2012.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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